

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claim 1 (currently amended): A communications method for use in a communications system including a first cell including a first base station and at least a first wireless terminal, the method comprising:

operating the first base station to transmit signals on a plurality of different communications channels, each individual one of the plurality of different communications channels each having a physical characteristic which is detectable by said first wireless terminal, transmitting the signals on the plurality of different communications channels including periodically changing at least one signal transmission characteristic of a first communications channel in said plurality of communications channels to introduce an intentional variation into said first communications channel which results in a change in said physical characteristic corresponding to the first communications channel; and

selecting between said plurality of different communications channels for purposes of transmitting the signals to said first wireless terminal in response to feedback information received from said first wireless terminal indicating the one of the plurality of different communications channels which provides the best transmission channel conditions for transmissions to the first wireless terminal at a particular point in time.

Claim 2 (original): The communications method of claim 1, wherein said different communications channels consist of different portions of air link resource that is partitioned in at least one of time and frequency dimension.

Claim 3 (original): The communications method of claim 1, further comprising:

operating the first base station to periodically transmit a pilot signal in each of said different communications channels, the pilot signal transmission being independent of information signals transmitted to any wireless terminal using the different communications channels.

Claim 4 (original): The communications method of claim 1, wherein said physical characteristic of one of said different communications channels is different from said physical characteristic of another one of said different communications channels.

Claim 5 (original): The communications method of claim 1, wherein said step of periodically changing at least one signal transmission characteristic to introduce an intentional variation includes:

introducing at least one of a periodic phase and periodic amplitude variation into said at least one of the different communications channels, the periodicity of the at least one variation being longer than the periodicity between the channel condition feedback information received from said first wireless terminal.

Claim 6 (currently amended): The communications method of claim 1, wherein said feedback information received from said first wireless terminal ~~channel~~ includes at least one channel quality report.

Claim 7 (original): The method of claim 1, further comprising:

repeating said selecting step, wherein repeating said selecting step includes switching from a previously selected one of said plurality of different communications channels to another one of said plurality of different communications channels which has a better channel quality to said wireless terminal than said previously selected one of said plurality of different communications channels.

Claim 8 (currently amended): The communications method of claim ~~4~~ 6, wherein said at least one channel quality report indicates at least one of a signal to noise ratio and a signal to interference ratio measured at said first wireless terminal for one of said plurality of different communications channels.

Claim 9 (currently amended): The communications method of claim 6, wherein the first wireless terminal transmits channel quality reports to said base station for a the plurality of different communications channels, the method further comprising:

operating the base station to receive said channel quality reports transmitted by said first wireless terminal; and

operating the base station to select between the communications channels for transmitting information to said first wireless terminal as a function of the channel quality reports ~~corresponding to multiple different communications channels~~, the base station selecting the channel indicated to have the best channel quality for transmission to the first wireless terminal.

Claim 10 (original): The communications method of claim 6, further comprising:

operating the base station to schedule information

transmission to a plurality of wireless terminals on each of the plurality of different communications channels, said scheduling including assigning information transmission times to different wireless terminals which are to use the same one of the different communications channels.

Claim 11 (original): The communications method of claim 6, wherein said feedback information is a signal indicating which one of the plurality of different communications channels the first wireless terminal has selected to be used for transmitting information to said first wireless terminal, the method further comprising:

operating the base station to receive a feedback signal from a second wireless terminal indicating which one of the plurality of different communications channels the second wireless terminal selected to be used for transmitting information to said second wireless terminal; and

operating the base station to control scheduling of transmissions to said first and second wireless terminals on the same one of said plurality of different communications channels when said received feedback signals indicate that the first and second wireless terminals have selected the same communications channel for the transmission of information from the base station.

Claim 12 (original): The method of claim 11, wherein the base station schedules transmission to the first and second wireless terminals on said selected same communications channel as a function of channel quality information provided by said first and second wireless terminals.

Claim 13 (original): The method of claim 1, further

comprising:

operating the first wireless terminal to make measurements of a plurality of communications channels included in said plurality of different communications channels.

Claim 14 (original): The method of claim 13, further comprising:

operating the first wireless terminal to select between said plurality of communications channels based on said measurements and to communicate said selection to said base station.

Claim 15 (original): The method of claim 14, further comprising:

operating the wireless terminal to transmit said feedback information, said feedback information indicating said selection to said base station.

Claim 16 (original): The method of claim 15, wherein said transmitted feedback information includes at least one channel identifier corresponding to said selected channel or channels, and channel quality information determined from a signal received on said selected channel or channels.

Claim 17 (original): The method of claim 1,
wherein said plurality of different communications channels includes at least 3 different communications channels, said three different communications channels including said first communications channel, a second communications channel and a third communication channel;
and

wherein said step of operating the first base station

to transmit signals on the plurality of different channels further includes:

changing at least one signal characteristic of each of said second and third communications channels on a periodic basis.

Claim 18 (original): The method of claim 17, wherein changing at least one signal characteristic of each of said second and third communications channels includes changing at least one transmission parameter used to control an antenna pattern.

Claim 19 (original): The method of claim 18, wherein the changing of the signal characteristics of said first, second and third communications channels is performed in a synchronized manner to maintain a physical difference between each of the first, second and third communications channels.

Claim 20 (original): The method of claim 18, wherein the changing of the signal characteristics of said first, second and third communications channels is performed to statistically maximize the maximal signal to noise ratios of the first, second and third signal communications channels.

Claim 21 (currently amended): The method of claim 1, wherein said communications system further includes a second cell including a second base station and at least a second wireless terminal, the method comprising

operating the second base station to transmit additional signals on a second plurality of different communications channels, each individual one of the second plurality of different communications channels each having

a physical characteristic which is detectable by said second wireless terminal, transmitting the additional signals on the second plurality of different communications channels including periodically changing at least one signal transmission characteristic of a second communications channel in said second plurality of communications channels to introduce an intentional variation into said second communications channel which results in a change in said physical characteristic corresponding to the second communications channel, the changing of at least one signal transmission characteristic of the second communications channel being performed at a second rate which is different from a first rate at which the at least one signal transmission characteristic of the first communications channel is changed in the first cell; and

selecting between said second plurality of different communications channels for purposes of transmitting the additional signals to said second wireless terminal in response to feedback information received from said second wireless terminal indicating the one of the second plurality of different communications channels which provides the best transmission channel conditions for transmissions to the second wireless terminal at a particular point in time.

Claim 22 (original): The method of claim 1, wherein said selecting between said plurality of different communications channels includes switching, and said switching occurs multiple times during an internet protocol communications session being conducted by said first wireless terminal with another terminal through said first base station without the internet protocol communications session being terminated and without the first wireless

terminal changing its location within the first cell.

Claim 23 (currently amended): The method of claim 1,
wherein said selecting between said plurality of
different communications channels includes switching, and
said switching is performed multiple times while said first
wireless terminal remains at a fixed location within said
first cell; and

wherein the same carrier frequency is used to transmit
the signals on said plurality of different communications
channels, said transmitting signals including mixing
baseband signals to passband signals having said carrier
frequency prior to transmitting said signals on said
plurality of different communications channels.

Claim 24 (original): The method of claim 1,
wherein said first communications channel includes a
first amplifier and a first antenna; and
wherein changing at least one signal characteristic of
the first communications channels includes changing the
amplification provided by said first amplifier to a signal
being transmitted on said first communications channel.

Claim 25 (original): The method of claim 24, wherein
said plurality of different communications channels
includes a second communications channel, the second
communications channel including a second amplifier and a
second antenna; the method further comprising:

periodically changing at least one signal
characteristic of the second communications channel by
periodically changing the amplification provided by said
second amplifier to a signal being transmitted on said
second communications channel.

Claim 26 (original) The method of claim 24, wherein the amplification provided by the first and second amplifiers is changed by changing a control coefficient used to control the amplification provided by said first and second amplifiers.

Claim 27 (original): The method of claim 1,
 wherein said first communications channel includes a first phase control module and a first antenna;
 wherein changing at least one signal characteristic of the first communications channels includes operating the first phase control module to change the phase of a signal being transmitted on said first communications channel;
 wherein said plurality of different communications channels includes a second communications channel, the second communications channel including a second phase control module and a second antenna; the method further comprising:
 periodically changing at least one signal characteristic of the second communications channel by periodically operating the second phase control module to change the phase of a signal being transmitted on said second communications channel; and
 wherein said first and second phase control modules are controlled by coefficients which are changed periodically to cause the first and second phase control modules to make said phase changes.

Claim 28 (original): The method of claim 1, wherein said base station includes multiple antennas from which said base station transmits said signals on the plurality of different communications channels,
 wherein said plurality of channels includes a second communications channel in addition to said first

communications channel, the first channel having a gain in a first direction, the second channel having a second gain in said first direction, the method further comprising:

maintaining a difference in the gain in the first direction between the first and second channels while changing values in a set of control coefficients corresponding to said first communications channel and a set of control coefficients corresponding to said second channel, changing values in the set of control coefficients resulting in a change in the gain of the first and second channels in said first direction..

Claim 29 (currently amended): A base station comprising:

means for transmitting signals on a plurality of different communications channels, each individual one of the plurality of different communications channels each having a physical characteristic which is detectable by ~~said~~ a first wireless terminal;

~~a control module~~ means for periodically changing at least one signal transmission characteristic of a first communications channel in said plurality of communications channels to introduce an intentional variation into said first communications channel which results in a change in said physical characteristic corresponding to the first communications channel; and

means for selecting between said plurality of different communications channels for purposes of transmitting the signals to said first wireless terminal in response to feedback information received from said first wireless terminal indicating the one of the plurality of different communications channels which provides the best transmission channel conditions for transmissions to the first wireless terminal at a particular point in time

Claim 30 (original): The base station of claim 29,
further comprising:

means for scheduling information transmission to a plurality of wireless terminals on each of the plurality of different communications channels, said scheduling including assigning information transmission times to different wireless terminals which are to use the same one of the different communications channels.

Claim 31 (currently amended): The base station of claim 30,
~~further including multiple antennas, each of said plurality of different communications channels includes at least two antennas; and~~

wherein said ~~control module~~ means for periodically changing at least one signal transmission characteristic, includes a coefficient generator for generating sets of control coefficients used to control transmission characteristics of different communications channels in said plurality of communications channels, said control coefficients controlling the processing of signals to be transmitted on the different communications channels.

Claim 32 (canceled):

Claim 33 (currently amended): A communications method for use in a communications system including a first cell including a first base station and at least a first wireless terminal, the method comprising:

operating the first base station to transmit signals on a plurality of different communications channels,
wherein said plurality of different communications channels includes at least 3 different communications channels, said three different communications channels including a first communications channel, a second communications channel and

a third communications channel, each individual one of the plurality of different communications channels each having a physical characteristic which is detectable by said first wireless terminal;

selecting between said plurality of different communications channels for purposes of transmitting the signals to said first wireless terminal in response to feedback information received from said first wireless terminal indicating the one of the plurality of different communications channels which provides the best transmission channel conditions for transmissions to the first wireless terminal at a particular point in time; and

changing at least one signal characteristic of each of said second and third communications channels on a periodic basis.

Claim 34 (original): The method of claim 33, wherein changing at least one signal characteristic of each of said second and third communications channels includes changing at least one transmission parameter used to control an antenna pattern.

Claim 35 (original): The method of claim 34, wherein the changing of the signal characteristics of said first, second and third communications channels is performed in a synchronized manner to maintain a physical difference between each of the first, second and third communications channels.

Claim 36 (original): The method of claim 34, wherein transmitting signals on each of the plurality of different communications channels includes transmitting different information signals on each of the first, second and third communications channels to different wireless terminals,

the different information signals being transmitted at the same time using different signal tones but the same carrier frequency.

Claim 37 (original): A method of operating a wireless terminal in a communications system in which a base station transmits information using a plurality of communications channels, each communications channel having at least one different physical characteristic, the at least one different physical characteristic of one of the communications channels being intentionally varied by said base station over time, the method of operating the wireless terminal comprising:

- making a channel quality measurements of each of said communications channels;

- maintaining channel quality estimates for at least two of said communications channels at the same time; and

- communicating channel quality feedback information to said base station indicative of which one of said plurality of different communications channels has the best quality for use in transmitting signals to said wireless terminal.

Claim 38 (original): The method of claim 37, further comprising:

- operating the wireless terminal to select which one of said plurality of communications channels should be used to transmit information to said wireless terminal as a function of the channel quality measurements; and

- wherein said channel quality feedback information includes a channel identifier identifying the selected communications channel.

Claim 39 (original): The method of claim 38, wherein said channel quality feedback information further includes

at least some indication of the quality of the selected communications channel.

Claim 40 (original): The method of claim 39, wherein said at least some indication of the quality of the selected communications channel includes at least one of signal to noise ratio information and signal to interference ratio information.

Claim 41 (original): The method of claim 38, wherein maintaining channel quality estimates for at least two of said communications channels at the same time includes:

 maintaining a first channel quality estimate for a first communications channel on which said wireless terminal reports to have good channel quality in said channel quality feedback information; and

 maintaining a second channel quality estimate for a second communications channel said wireless terminal does not report to have good channel quality in said channel quality feedback information.

Claim 42 (original): The method of claim 37, wherein maintaining channel quality estimates for at least two of said communications channels at the same time includes:

 maintaining a first channel estimate for a first communications channel;

 maintaining a second channel estimate for a second communications channel which is different from said first communications channel,

 the method further comprising:

 switching between using the first and second channel estimates in response to the first base station switching between said first and second channels in response to feedback information

indicating a change in said first and second channels, said change corresponding to a variation intentionally introduced into said first and second channels by said base station.

Claim 43 (currently amended): The method of claim 42, wherein information received from said first and second channels is modulated using the same carrier frequency, the method further comprising:

performing a demodulation operation on the signals received in said first and second communications channels without changing a carrier frequency used in said demodulation process from passband to baseband signal format.

Claim 44 (original): A wireless terminal for use in a communications system in which a base station transmits information using a plurality of communications channels, each communications channel having at least one different physical characteristic, the at least one different physical characteristic of one of the communications channels being intentionally varied by said base station over time, the wireless terminal comprising:

means for making a channel quality measurements of each of said communications channels;

memory including channel quality estimates for at least two of said communications channels at the same time; and

means for communicating channel quality feedback information to said base station indicative of which one of said plurality of different communications channels has the best quality for use in transmitting signals to said wireless terminal.

Claim 45 (original): The wireless terminal of claim 44, further comprising:

 means for selecting which one of said plurality of communications channels should be used to transmit information to said wireless terminal as a function of the channel quality measurements; and

 wherein said channel quality feedback information communicated by said means for communicating includes a channel identifier identifying the selected communications channel.

Claim 46 (original): The wireless terminal of claim 45, further comprising:

 means for maintaining a first channel estimate for a first communications channel;

 means for maintaining a second channel estimate for a second communications channel which is different from said first communications channel; and

 means for switching between using the first and second channel estimates in response to the first base station switching between said first and second channels in response to feedback information indicating a change in said first and second channels, said change corresponding to a variation intentionally introduced into said first and second channels by said base station.

Claim 47 (original): A transmission method for use in a device including multiple antennas, comprising:

 processing a first signal as a function of at least one coefficient in a first transmission control coefficient set corresponding to a first channel to produce a first processed signal having a first physical signal characteristic;

 transmitting the first processed signal from at least

one of said multiple antennas;

transmitting at least one other signal corresponding to the first signal, in parallel with the transmission of said first processed signal, from another one of said multiple antennas;

processing a second signal as a function of at least one coefficient in a second transmission control coefficient set corresponding to a second channel to produce a second processed signal, said second processed signal having a second physical signal characteristic introduced by said processing which is different from said first physical signal characteristic;

transmitting the second processed signal from at least one of said multiple antennas;

transmitting at least one other signal corresponding to the second signal, in parallel with the transmission of said second processed signal, from another one of said multiple antennas;

receiving channel condition feedback information from a wireless terminal at a first rate; and

scheduling transmission of signals to said first wireless terminal as a function of said channel condition feedback information.

Claim 48 (original): The method of claim 47, further comprising:

modifying at least one coefficient in said first transmission control coefficient set, by an amount sufficient to induce a change in said feedback information, at a rate which is less than or equal to said first rate;

Claim 49 (original): The method of claim 48, further comprising:

modifying at least one coefficient in said second

transmission control coefficient set, by an amount sufficient to induce a change in said feedback information.

Claim 50 (original): The method of claim 49,
 wherein said modifying at least one coefficient in
said first transmission control coefficient set is
performed at a rate which is less than or equal said first
rate; and

 wherein said modifying at least one coefficient in
said second transmission control coefficient set is
performed at a rate which is less than or equal said first
rate.

Claim 51 (original): The method of claim 47, wherein
modifying at least one coefficient in said first
transmission coefficient set induces at least one of a
phase and a gain variation into signals transmitted using
the first channel, the gain variation causing an
amplitude variation in the transmitted signal.

Claim 52 (original): The method of claim 51, wherein
the gain variation introduced into the first channel over a
first period of time corresponding to the time between the
receipt of channel condition feedback information from said
wireless terminal is less than the gain difference between
the first and second channels during the first period of
time.

Claim 53 (original): The method of claim 47, wherein
said first and second processed signals are transmitted at
the same time.

Claim 54 (original): The method of claim 47, wherein
said first and second processed signals are transmitted in

non-overlapping periods of time which recur on a periodic basis.

Claim 55 (original): A transmission method for use with a base station including a plurality of antennas which are used to transmit signals to multiple wireless terminals, the method comprising:

- maintaining a plurality of channels between said base station and at least one of said wireless terminals, said channels having different transmission characteristics;

- maintaining for each channel a transmission control coefficient set including at least one transmission control coefficient used to control at least one of said different transmission characteristics;

- receiving channel condition feedback information from at least one wireless terminals at a first rate;

- changing, at a second rate, the content of each set of transmission control coefficients over time to induce transmission variations into the signals transmitted using each of the maintained channels, and

- scheduling transmissions to individual wireless terminals using said channels as a function of received channel condition information.

Claim 56 (original): The method of claim 55, wherein said the second rate is less than or equal to the first rate.

Claim 57 (original): The method of claim 55, wherein each communications channel has a different channel transfer function, the difference in the channel transfer function resulting in a measurable channel difference at said wireless terminal.

Claim 58 (original): The method of claim 55, wherein each channel includes multiple transmit antennas, each transmit antenna transmitting a signal having the same information as signals transmitted from other ones of said multiple transmit antennas corresponding to the same channel but which was subject to different transmission processing prior to transmission as a function of at least one of said transmission control coefficients.

Claim 59 (original): The method of claim 55, wherein said different transmission characteristics include at least one of a gain characteristic and a phase characteristic, said different which differs in an amount which can be measured by said wireless terminal from another one of said transmission channels.

Claim 60 (original): The method of claim 59, wherein scheduling transmissions includes:

 selecting for a wireless terminal to which a transmission is to be directed, the best one of said plurality of channels on which to transmit the signal being scheduled for transmission.

Claim 61 (original): The method of claim 55, wherein said plurality of channels includes a first channel and a second channel, the first channel having a gain in a first direction, the second channel having a second gain in said first direction, the method further comprising:

 maintaining a difference in the gain in the first direction between the first and second channels while changing the sets of control coefficients corresponding to said first and second channels.

Claim 62 (original): The method of claim 61, wherein

the values of the control coefficients corresponding to the first and second channels are selected to maximize the directional gain difference between said first and second channels.

Claim 63 (original): The method of claim 47, wherein the coefficients in the first set of transmission control coefficients is changed at intervals longer than 35 milliseconds.

Claim 64 (original): The method of claim 47, wherein the coefficients in the first set of transmission control coefficients are changed at a rate which is at least one half the first rate, thereby allowing for the receipt of two channel quality reports from said wireless terminal for each time the first coefficient set is changed.

Claim 65 (original): The method of claim 47, wherein at least one of said transmission control coefficients is a complex value.

Claim 66 (original): The method of claim 47, wherein at least one of said transmission control coefficients is a value used to control the gain of a signal amplifier.

Claim 67 (original): A base station comprising:
 multiple antennas;
 means for processing a first signal as a function of at least one coefficient in a first transmission control coefficient set corresponding to a first channel to produce a first processed signal having a first signal characteristic;
 means for transmitting the first processed signal using at least one of said multiple antennas;

means for transmitting at least one other signal corresponding to the first signal, in parallel with the transmission of said first processed signal, from another one of said multiple antennas;

means for processing a second signal as a function of at least one coefficient in a second transmission control coefficient set corresponding to a second channel to produce a second processed signal, said second processed signal having a signal characteristic introduced by said processing which is different from said first signal characteristic;

means for transmitting the second processed signal from at least one of said multiple antennas;

means for transmitting at least one other signal corresponding to the second signal, in parallel with the transmission of said first processed signal, from another one of said multiple antennas;

a receiver for receiving channel condition feedback information from a wireless terminal at a first rate;

transmission control means for modifying at least one coefficient in said first transmission control coefficient set, by an amount sufficient to induce a change in said feedback information, at a rate which is less than or equal to said first rate; and

a scheduler for scheduling transmission of signals to wireless terminals as a function of said channel condition feedback information.

Claim 68 (new): A base station comprising:

a processor configured to control said base station to implement a method, the method comprising:

transmitting signals on a plurality of different communications channels, each individual one of the plurality of different communications channels each having

a physical characteristic which is detectable by a wireless terminal;

periodically changing at least one signal transmission characteristic of a first communications channel in said plurality of communications channels to introduce an intentional variation into said first communications channel which results in a change in said physical characteristic corresponding to the first communications channel; and

selecting between said plurality of different communications channels for purposes of transmitting the signals to said wireless terminal in response to feedback information received from said first wireless terminal indicating the one of the plurality of different communications channels which provides the best transmission channel conditions for transmissions to the wireless terminal at a particular point in time.

Claim 69 (new): The base station of claim 68, wherein the method further comprises:

scheduling information transmission to a plurality of wireless terminals on each of the plurality of different communications channels, said scheduling including assigning information transmission times to different wireless terminals which are to use the same one of the different communications channels.

Claim 70 (new): A computer readable medium embodying machine executable instructions for controlling a base station to implement a method, the method comprising:

transmitting signals on a plurality of different communications channels, each individual one of the plurality of different communications channels each having a physical characteristic which is detectable by a wireless

terminal;

periodically changing at least one signal transmission characteristic of a first communications channel in said plurality of communications channels to introduce an intentional variation into said first communications channel which results in a change in said physical characteristic corresponding to the first communications channel; and

selecting between said plurality of different communications channels for purposes of transmitting the signals to said wireless terminal in response to feedback information received from said wireless terminal indicating the one of the plurality of different communications channels which provides the best transmission channel conditions for transmissions to the wireless terminal at a particular point in time

Claim 71 (new): The computer readable medium of claim 70, wherein the method further comprises:

scheduling information transmission to a plurality of wireless terminals on each of the plurality of different communications channels, said scheduling including assigning information transmission times to different wireless terminals which are to use the same one of the different communications channels.

Claim 72 (new): A base station comprising:

a transmitter module for transmitting signals on a plurality of different communications channels, each individual one of the plurality of different communications channels each having a physical characteristic which is detectable by a wireless terminal;

a control module for periodically change at least one signal transmission characteristic of a first

communications channel in said plurality of communications channels to introduce an intentional variation into said first communications channel which results in a change in said physical characteristic corresponding to the first communications channel; and

a selection module for selecting between said plurality of different communications channels for purposes of transmitting the signals to said wireless terminal in response to feedback information received from said wireless terminal indicating the one of the plurality of different communications channels which provides the best transmission channel conditions for transmissions to the wireless terminal at a particular point in time

Claim 73 (new): The base station of claim 72, further comprising:

a scheduling module for scheduling information transmission to a plurality of wireless terminals on each of the plurality of different communications channels, said scheduling including assigning information transmission times to different wireless terminals which are to use the same one of the different communications channels.

Claim 74 (new): The base station of claim 73, wherein said control module for periodically changing at least one signal transmission characteristic, includes a coefficient generator for generating sets of control coefficients used to control transmission characteristics of different communications channels in said plurality of communications channels, said control coefficients controlling the processing of signals to be transmitted on the different communications channels.

Claim 75 (new): A wireless terminal for use in a

communications system in which a base station transmits information using a plurality of communications channels, each communications channel having at least one different physical characteristic, the at least one different physical characteristic of one of the communications channels being intentionally varied by said base station over time, the wireless terminal comprising a processor configured to control said wireless terminal to implement a method, the method comprising:

- making a channel quality measurements of each of said communications channels;

- maintaining channel quality estimates for at least two of said communications channels at the same time; and

- communicating channel quality feedback information to said base station indicative of which one of said plurality of different communications channels has the best quality for use in transmitting signals to said wireless terminal.

Claim 76 (new): The wireless terminal of claim 75, wherein the method further comprises:

- selecting which one of said plurality of communications channels should be used to transmit information to said wireless terminal as a function of the channel quality measurements; and

- wherein said channel quality feedback information includes a channel identifier identifying the selected communications channel.

Claim 77 (new): The wireless terminal of claim 76, wherein said channel quality feedback information further includes at least some indication of the quality of the selected communications channel.

Claim 78 (new): A computer readable medium embodying

machine executable instructions for controlling a wireless terminal to implement a method, in a communications system in which a base station transmits information using a plurality of communications channels, each communications channel having at least one different physical characteristic, the at least one different physical characteristic of one of the communications channels being intentionally varied by said base station over time, the method comprising:

making a channel quality measurements of each of said communications channels;

maintaining channel quality estimates for at least two of said communications channels at the same time; and

communicating channel quality feedback information to said base station indicative of which one of said plurality of different communications channels has the best quality for use in transmitting signals to said wireless terminal.

Claim 79 (new): The computer readable medium of claim 78, wherein the method further comprises:

selecting which one of said plurality of communications channels should be used to transmit information to said wireless terminal as a function of the channel quality measurements; and

wherein said channel quality feedback information includes a channel identifier identifying the selected communications channel.

Claim 80 (new): The computer readable medium of claim 79, wherein said channel quality feedback information further includes at least some indication of the quality of the selected communications channel.

Claim 80 (new): A wireless terminal for use in a

communications system in which a base station transmits information using a plurality of communications channels, each communications channel having at least one different physical characteristic, the at least one different physical characteristic of one of the communications channels being intentionally varied by said base station over time, the wireless terminal comprising:

- a channel quality measurement module for making a channel quality measurements of each of said communications channels;

- a memory including channel quality estimates for at least two of said communications channels at the same time; and

- a communications module for communicating channel quality feedback information to said base station indicative of which one of said plurality of different communications channels has the best quality for use in transmitting signals to said wireless terminal.

Claim 81 (new): The wireless terminal of claim 80, further comprising:

- a selection module for selecting which one of said plurality of communications channels should be used to transmit information to said wireless terminal as a function of the channel quality measurements; and

- wherein said channel quality feedback information communicated by said communications module includes a channel identifier identifying the selected communications channel.

Claim 82 (new): The wireless terminal of claim 81, further comprising:

- a first maintenance module for maintaining a first channel estimate for a first communications channel;

a second maintenance module for maintaining a second channel estimate for a second communications channel which is different from said first communications channel; and

a switching module for switching between using the first and second channel estimates in response to the first base station switching between said first and second channels in response to feedback information indicating a change in said first and second channels, said change corresponding to a variation intentionally introduced into said first and second channels by said base station.